

State of California - Health and Human Services Agency

California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0569

Collector:

RHM

RHB

Requestor: Roger Lupo

RHB

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

CA

Sacramento

95814-5006

SAN ONOFRE

Phone Number:

Phone Number: 916-440-7955

Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012

System No:

Billing Agency: RHB

Samples Received by Lab: 10/24/2012

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 12-0569-01

Sample Type: Fish/Shellfish

Sample ID:

R 92336

Time Collected: 10/22/2012 11:55

Sampling Point: Calif Sheephead

K-40

EPA 901.1

16.4 +/- 0.379

0.486

pCi/L

Dry wt wet wt

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Sanitation and Radiatio 850 Marina Bay Parkway Richmond, CA 94804 510-620-2911	n Laboratories Branch	Date Received 10-24-/2 Date & Time Sampled	Lab No. (Leave Blank). 12-05 (p 9 Serial Number
Collector Information		Reporting Information	
Name: Dept./Branch:	RHM	Name: Dept./Branch:	
Address:	JOH OWALE	Address:	
Telephone No.:		Telephone No.:	
Sample Information System Name / Facility: Sampling Point (s): System No.:	San Duplie	U DWTPB I FDB (RWQCB() DTSC DWR DCDFG pecify)
TYPE OF SAMPLE (Chec	k all applicable hoves)		
☐ Drinking Water ☐ Raw	☐ Groundwater	☐ Surface Water (P) ☐ Distribution System (Dioxide / Ozonated / Peroxizone / Flu	☐ Wastewater ☐ Point of Use (POU) poridated / Coagulated / pH Adjusted
☐ Air Filters	Date/Time	☐ Seawater	☐ Sludge (Semi-solid Samples)
Finishing:		☐ Milk	☐ Soil/Sediment
		☐ Wipes	Biota (Type): Cale Sheep
Net (M³)		☐ Radon Canister	□ Other:
☐ Air Charcoal Cartridge			
☐ Field Measurement: ☐ Rush/Priority (should be	mR/hr e prearranged and have supervisory ap	— Madio Hackae(3), Il KIJOWII.	
	(For questions, please call 510-620-29	11)	
Gross Alpha	☐ Gross B	— Cumma	Scan
Total Uranium		ta (LSC) NORM (Gamma)
Total Radium	🗖 Tritium (Americium / Curium
Radium-226	☐ Carbon-	— 100topio	
Radium-228 Radon-222	☐ lodine-1:	- isotopic	
Other (Specify);	☐ Strontiur		Uranium
CHAIN OF CUSTODY	Nickel-6:	3 🔲 Iron-55	
•			
Date	Name (Print)		Date
Time Custody Received	Organization	Signature	Time Custody Released
Date	Name (Print)		Date
Time Custody Received	Organization // A	Signature	Time Custody Released
Date (~ (A)	Name (Print)	Ma A	Date
Time Custody Received	Organization D WKLD	Signature Con Con Mile Con Control Con Control Con Control Con	Time Custody Released
ABORATORY REMARKS Condition at Time of Rec	(Leave Blank) elpt:		
Acceptable Holding Time Exceed	□ Broken Container	Leaked in Transit Insufficient Sample	☐ Improper Container
. Preservatives/Carriers:	9 D Added in Laboratory	☐ Not Added	Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 12-0519

Collector:

RHM

RHB

Requestor: Roger Lupo

RHB

SAN ONOFRE Phone Number:

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Sacramento

CA 95814-5006

Phone Number: 916-440-7955

Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012

System No:

Billing Agency: RHB

Samples Received by Lab: 10/12/2012

Parameter

Method

Sample Type: Fish/Shellfish

Result +/- CE

MDA 95

Units

Lab No: 12-0519-01

Sample ID:

R 92321

Time Collected: 10/9/2012 11:20

0.2433

Sampling Point: Sheaphead

Dry Wt/Wet Wt

K-40

HASL Ga-01-R

14.2 +/- 0.359

0.599

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Sanitation and Radiation	Laboratoriae Propob	E ANALYSIS (Radiochemical) Date Received	
850 Marina Bay Parkway, (Lab No. (Leave Blank)
Richmond, CA 94804		Date & Time Sampled	12-0519
510-620-2911			Serial Number
2-04		10-9-12 11:20	_R 92321
Collector Information Name:		Reporting Information	
Dept./Branch:		Name: Dept./Branch:	
Address:	RHM	Address:	
elephone No.:		Telephone No.:	
sample Information		Billing Agency	
System Name / Facility: Sampling Point (s):	San Ouplie,	DWFOB() RHB RWC DWTPB PDB DWR DEMB Other (Specify)	CDFG
System No.:	Songo e	☐ EMB ☐ Other (Specify) _	
YPE OF SAMPLE (Check	all applicable boxes)		
Drinking Water Raw Treated (circle one): Ch	Groundwater Water Treatment Plant (WTP)	Surface Water Distribution System Distribution System Proxide / Ozonated / Peroxizone / Fluoridated	astewater bint of Use (POU)
	Cinated / Choraninated / Chorne Dio	xide / Ozonated / Peroxizone / Fluoridated	/ Coagulated / pH Adjuste
Air Filters	Date/Time	☐ Seawater ☐ SI	udge (Semi-solid Samples
Finishing:		· —	oil/Sediment
Starting:		C 14.0	ota (Type):
Net (M ³)			
Air Charcoal Cartridge			her: _Shophead
OMMENTS: (Cautions, etc.	c.):		
Field Treatment: Prese	ervatives added:	Iced/Frozen:	
The second secon			
	prearranged and have supervisory appro	Radionuclide(s), if known:	
The second secon			
	or questions, please call 510-620-2911)		
Gross Alpha	☐ Gross Beta	- Canina Coan	
Total Uranium	☐ Total Beta)
Total Radium	☐ Tritium (³ H)) 🚨 Isotopic Americii	
Radium-226	☐ Carbon-14		
Radium-228	☐ lodine-131	☐ Isotopic Thorium	
Radon-222	☐ Strontium-8	39, 90 🔲 Isotopic Uranium	
Other (Specify);		☐ Iron-55	
AIN OF CUSTODY			
Date	Name (Print)		
			Date
	Organization Name (Print)	Signature	Time Custody Released
			Date
10-12-12	Organization VA Name (Print)	Signature	Time Custody Released
1:20 pm	K 0 1 Q	191 1011 11	Date
Time Custody Received	Organization 9 00 RC 5	Signature Work Mulle	Time Custody Released
BORATORY REMARKS (I Condition at Time of Recei Acceptable Holding Time Exceeded	pt: D Broken Container	O Leaked in Transit	Improper Container
Preservatives/Carriers: Added While Sampling		Insufficient Sample Not Added	



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 12-0520

Collector:

RHM

RHB

Requestor: Roger Lupo

RHB

SAN ONOFRE

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Sacramento

CA 95814-5006

Phone Number:

Phone Number: 916-440-7955

System No:

Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012 Billing Agency: RHB

Samples Received by Lab: 10/12/2012

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 12-0520-01

Sample ID: Sample Type: Fish/Shellfish

R 92322

Time Collected: 10/9/2012 11:15

Sampling Point: Black Perch

Dry Wt/Wet Wt

0.2613

K-40

HASL Ga-01-R

13.2 +/- 0.364

0.792

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

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⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

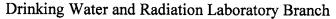
Lab 803 (11/07)

	E ANALYSIS (Radiochemical)	
Sanitation and Radiation Laboratories Branch	Date Received	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	10-12-12	1220520
510-620-2911	Date & Time Sampled	Serial Number
	10-9-12 11:15	R 92322
Collector Information Name:	Reporting Information	
Dept./Branch:	Name: Dept./Branch:	
Y W Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	Address:	
Address: RHM		
Telephone No.: Sample Information	Telephone No.:	
System Name / Facility:	Billing Agency	
System Name / Facility: Sampling Point (s): Saw Ovo	☐ DWFOB() ☐ RHB ☐ RWQ	
System No.: Sove C	☐ EMB ☐ Other (Specify) _	
TYPE OF SAMPLE (Check all applicable boxes)		
☐ Drinking Water ☐ Groundwater	✓ □ Surface Water □ W	astewater
Raw Water Treatment Plant (WTP) Distribution System D Po	int of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Die	oxide / Ozonated / Peroxizone / Fluoridated	/ Coagulated / pH Adjusted
☐ Air Filters Date/Time	☐ Seawater ☐ Slu	ıdge (Semi-solid Samples)
Finishing:		il/Sediment
Starting:		
Net (M ³)	☐ Radon Canister ☐ Ott	ota (Type): Black Perci
☐ Air Charcoal Cartridge		ner:
COMMENTS: (Cautions, etc.):		
☐ Field Treatment: Preservatives added:	lced/Frozen: Other: _	
☐ Field Measurement:mR/hr	☐ Radionuclide(s), if known:	
 Rush/Priority (should be prearranged and have supervisory app 	roval) RHM	
ANALYSIS REQUESTED (For questions, please call 510-620-291		
☐ Gross Alpha ☐ Gross Bei	ta 🚨 Gamma Scan	
☐ Total Uranium ☐ Total Beta		
☐ Total Radium ☐ Tritium (³)		
☐ Radium-226 ☐ Carbon-14		
☐ Radium-228 ☐ lodine-13		
☐ Radon-222 ☐ Strontium		
Other (Specify); Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY		
1. Date Name (Print)		Date
Time Custody Received Organization	Signature	
2. Date Name (Print)		Time Custody Released
		Date
Time Custody Received Organization 3	Signature	Time Custody Released
Date Name (Print)	20 1-12	Date
Time Custody Received Organization	Signature July Wi	Time Custody Released
LABORATORY REMARKS (Leave Blank)		
A. Condition at Time of Receipt:		
☐ Acceptable ☐ Broken Container ☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Leaked in Transit ☐ Insufficient Sample	Improper Container
3. Preservatives/Carriers:		
☐ Added While Sampling ☐ Added in Laboratory	□ Not Added □	Not Applicable /



State of California - Health and Human Services Agency

California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 12-0521

Collector:

RHM

RHB

Requestor: Roger Lupo

RHB

SAN ONOFRE

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Sacramento

CA 95814-5006

Phone Number:

Sample ID:

Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012

Phone Number: 916-440-7955

System No:

Billing Agency: RHB

Samples Received by Lab: 10/12/2012

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 12-0521-01

Sample Type: Fish/Shellfish

R 92323

Time Collected: 10/9/2012 10:55

0.1657

Sampling Point: California Mussel

Dry Wt/Wet Wt

K-40

HASL Ga-01-R

12.7 +/- 0.327

0.510

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	REQUEST FOR SAMPL	E ANALYSIS (Rad	diochemical)	
Sanitation and Radiatio		Date Re	5. That committee to the first	Lab No. (Leave Blank)
850 Marina Bay Parkway Richmond, CA 94804	, G164	10-12-	-12	120521
510-620-2911		Date & Tim		Serial Number
7		10-9-1	2 10:55	R 92323
Collector Information		Reporting Inform		TO SECOLO
Name: Dept./Branch:		Name:		
	RHM	Dept./Branch: Address:		
in the second	K 7(30)	riddiess.		
Telephone No.:		Telephone No.:		
Sample Information System Name / Facility:		Billing Agency		
Sampling Point (s):	San Duofie	DWFOB ()		QCB() DTSC
		© EMB	☐ FDB ☐ DWI	
System No.:			(opcolly)	
TYPE OF SAMPLE (Chec				
☐ Drinking Water ☐ Raw	☐ Groundwater☐ Water Treatment Plant (WTP)	Surface Water		Vastewater
	Chlorinated / Chloraminated / Chlorine Die	ovide / Ozopeted / De	stem U F	Point of Use (POU)
		OAIGE / OZUHALEQ / PE	zioxizorie / Fluoridate	o / Coagulated / pH Adjusted
☐ Air Filters	Date/Time	☐ Seawater	□s	ludge (Semi-solid Samples)
		☐ Milk		oil/Sediment
_		☐ Wipes	ŞQ B	liota (Type): Cari, Mi
Net (M³)		☐ Radon Canister	r Go	tiota (Type): <u>Pacif. Mu</u>
Air Charcoal Cartridge				
COMMENTS: (Cautions,	etc.):			
Treatment: Dre	etc.):eservatives added:	118		
Field Megeurement:	mR/hr	iced/Frozen:	Other:	
	e prearranged and have supervisory app	☐ Radionuclide(s), if known:	
	(For questions, please call 510-620-2911	1)		
Gross Alpha	☐ Gross Bet		Gamma Scan	
Total Uranium	☐ Total Beta		☐ NORM (Gamma	a)
Total Radium	☐ Tritium (³ l-		☐ Isotopic Americ	ium / Curium
Radium-226	☐ Carbon-14		Isotopic Plutoni	um
Radium-228	☐ lodine-131		Isotopic Thoriur	n
Radon-222	☐ Strontium-	-89, 90	Isotopic Uraniui	m
Other (Specify);	Nickel-63		☐ Iron-55	
HAIN OF CUSTODY				
Date	Name (Print)			
·				Date
Time Custody Received	Organization	Signature		Time Custody Released
Date	Name (Print)			D-44
				Date
Time Custody Received	Organization / A	Signature	and the first section	Time Custody Released
Date / U - I - I - I - I - I - I - I - I - I -	Name (Print)			Date
Time Custody Received	DURLB	- Duto	40 M. al.	
Time Custody Received	Organization	Signature	S. M. DOC	Time Custody Released
BORATORY REMARKS	(Leave Blank)			
Condition at Time of Rec	celpt: ☐ Broken Container	D. Indiana		
☐ Holding Time Exceed	ded Sample Not Cooled	☐ Leaked in Trans ☐ Insufficient Sam		Improper Container
Preservatives/Carriers:				
☐ Added While Samplin	ng Added in Laboratory	Not Added		



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0522

Collector:

RHM

RHB

Requestor: Roger Lupo

RHB

SAN ONOFRE

CA

Sacramento

CDPH - RHB, 1500 Capitol Av., MS 7610

Phone Number:

CA 95814-5006

Phone Number: 916-440-7955

Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012

System No

Billing Agency: RHB

Samples Received by Lab: 10/12/2012

Parameter Method Result +/- CE Units **MDA** 95 Lab No: 12-0522-01 R 92324 Time Collected: 10/9/2012 11:25 Sample ID: Sampling Point: Spiny Lobster Sample Type: Fish/Shellfish Dry Wt/Wet Wt 0.2666 K-40 HASL Ga-01-R 14.7 +/- 0.353 0.459 pCi/g dry wt

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

State of California – Health and Welfare Agency **REQUEST FOR SAMPLE ANALYSIS (Radiochemical)** Lab No. (Leave Blank) Date Received Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 Date & Time Sampled Serial Number 510-620-2911 92324 Reporting Information **Collector Information** Name: Name: Dept./Branch: Dept./Branch: RHM Address: Address: Telephone No.: Telephone No.: **Billing Agency** Sample Information System Name / Facility: san Onofie. DWFOB() ☐ RHB ☐ RWQCB() DTSC Sampling Point (s): ☐ DWTPB ☐ DWR ☐ CDFG ☐ FDB □ EMB ☐ Other (Specify) System No.: TYPE OF SAMPLE (Check all applicable boxes) Groundwater ☐ Wastewater Surface Water Drinking Water ☐ Point of Use (POU) ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Raw Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted ☐ Sludge (Semi-solid Samples) Date/Time Seawater Air Filters ☐ Milk □ Soil/Sediment Finishing: Pr Biota (Type): Spiny Lobster Wipes Starting: Net (M³) □ Radon Canister Air Charcoal Cartridge COMMENTS: (Cautions, etc.): ☐ Field Treatment: Preservatives added: __ iced/Frozen: Other: mR/hr ☐ Radionuclide(s), if known: Field Measurement: Rush/Priority (should be prearranged and have supervisory approval) ANALYSIS REQUESTED (For questions, please call 510-620-2911) Gross Alpha ☐ Gross Beta Gamma Scan ☐ Total Beta (LSC) ■ NORM (Gamma) ☐ Total Uranium ☐ Tritium (³H) ☐ Isotopic Americium / Curium ☐ Total Radium ☐ Carbon-14 ☐ Radium-226 Isotopic Plutonium ☐ lodine-131 ☐ Isotopic Thorium ☐ Radium-228 ☐ Isotopic Uranium ☐ Strontium-89, 90 ☐ Radon-222 ☐ Iron-55 ☐ Other (Specify); ☐ Nickel-63 CHAIN OF CUSTODY 1. Date Name (Print) Date **Time Custody Released** Organization Signature **Time Custody Received** 2. Name (Print) Time Custody Received Organization Signature Time Custody Released Name (Print) Date Time Custody Received Organization Time Custody Released Signature LABORATORY REMARKS (Leave Blank) **Condition at Time of Receipt:** Acceptable **Broken Container** Leaked in Transit Improper Container

Insufficient Sample

Not Applicable

Holding Time Exceeded

Preservatives/Carriers: Added While Sampling Sample Not Cooled

Added in Laboratory



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0502

Collector:

RHM

RHB

Requestor: Roger Lupo

RHB

SAN ONOFRE

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

95814-5006

Phone Number:

Phone Number: 916-440-7955

Samples Received by Lab: 10/5/2012

System No:

Parameter

Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012

Billing Agency: RHB

Units

Lab No: 12-0502-01

Method

Sample Type: Fish/Shellfish

Result +/- CE

MDA 95

Sample ID:

R 92315

Time Collected: 10/3/2012 14:08

0.258

Sampling Point: Lobster, SONGS

Dry Wt/Wet Wt

K-40

HASL Ga-01-R

16.2 +/- 0.390

0.492

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

		MIAL 1313 (Naulochelilical)	<u> </u>
Sanitation and Radiation		Date Received	Lab No. (Leave Blank)
850 Marina Bay Parkway,	G164	10-6-10	10.0502
Richmond, CA 94804		Date & Time Sampled	Serial Number
510-620-2911		10-3-12 14:08	R 92315
Collector Information		Reporting Information	11 32313
Name:	RHM onep A	Name:	
Dept./Branch:	K (C	Dept./Branch:	
Address:	A. A	Address:	
	over 11		ta de la companya de
Telephone No.:		Telephone No.:	<u> </u>
Sample Information System Name / Facility:		Billing Agency	
0	/ n= 1/1	DWFOB() RHB RWQ DWTPB DFDB DWR	CB() DTSC DCDFG
	Sonop A	☐ EMB ☐ Other (Specify)	
System No.:		Curici (opecity)	
TYPE OF SAMPLE (Check	(all applicable boxes)		
Drinking Water	☐ Groundwater	☐ Surface Water ☐ W	astewater
☐ Raw	☐ Water Treatment Plant (WTP)		pint of Use (POU)
☐ Treated (circle one): Ch	nlorinated / Chloraminated / Chlorine Diox	xide / Ozonated / Peroxizone / Fluoridated	d / Coagulated / pH Adjusted
☐ Air Filters	Date/Time	☐ Seawater ☐ SI	udge (Semi-solid Samples)
			pil/Sediment
Starting:			
		_	ota (Type): Lobster
Net (M³)		Radon Canister	ther:
☐ Air Charcoal Cartridge			
COMMENTS: (Cautions, e	tc.):		
☐ Field Treatment: Pres	servatives added:	Iced/Frozen: Other:	·
Field Measurement:		Radionuclide(s), if known:	
T Rush/Phonty (should be	e prearranged and have supervisory appro	oval)	
ANALYSIS REQUESTED (For questions, please call 510-620-2911)		
Gross Alpha	☐ Gross Beta	☐ Gamma Scan	
☐ Total Uranium	☐ Total Beta	(LSC)	n f
☐ Total Radium	☐ Tritium (³H)		· · · · · · · · · · · · · · · · · · ·
☐ Radium-226	☐ Carbon-14	•	, 1 to 1 t
Radium-228	☐ lodine-131	☐ Isotopic Flutorium	
Radon-222	☐ Strontium-8		the state of the s
Other (Specify);	□ Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY			
1 Date	Name (Print)	The second state of the second	Date
			Date
Time Custody Received 2.	Organization	Signature	Time Custody Released
Date	Name (Print)		Date
			Date
Time Custody Received 3.	Organization	Signature	Time Custody Released
Date 10-5-12	Name (Print)		Date
11:15	DINDIB	1) July Male	Date
Time Custody Received	Organization	Signature	Time Custody Released
ABORATORY REMARKS	A eave Pleats		
A. Condition at Time of Rec			$\cdot \bar{x}$ \mathcal{G}
☐ Acceptable	☐ Broken Container	☐ Leaked in Transit ☐	Improper Container
☐ Holding Time Exceed	led 🔲 Sample Not Cooled	☐ Insufficient Sample	
	Commission of the Commission of Commission of the Commission of th		
B. Preservatives/Carriers:	ng D Added in Laboratory	w.	



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 12-0503

Collector:

RHM

RHB

Requestor: Roger Lupo

RHB

CA

SAN ONOFRE

CA

CDPH - RHB, 1500 Capitol Av., MS 7610 95814-5006

Phone Number:

Phone Number: 916-440-7955

Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012 Billing Agency: RHB

Samples Received by Lab: 10/5/2012

Parameter

System No:

Method

Sample Type: Fish/Shellfish

Result +/- CE

MDA 95

Units

Lab No: 12-0503-01

Sample ID:

R 92316

Time Collected: 10/3/2012 14:00

0.177

Sampling Point: California

Mussels, SONGS A

Dry Wt/Wet Wt

K-40

HASL Ga-01-R

11.4 +/- 0.303

0.537

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Sanitation and Radiation	and the second s	MPLE ANALYSIS (Radiochemical)	
850 Marina Bay Parkway, 0 Richmond, CA 94804 510-620-2911		Date Received 10-5-12 Date & Time Sampled 10-3-12 14:00	Lab No. (Leave Blank) 12-0503 Serial Number R 92316
Collector Information		Reporting Information	K 32310
Name: Dept./Branch: Address:	KHW	Name: Dept./Branch: Address:	
Telephone No.:		Telephone No.:	
Sample Information		Billing Agency	
System Name / Facility: Sampling Point (s): System No.:	Sonas A	DWFOB() RHB RWC DWTPB FDB DWF EMB Other (Specify)	
TYPE OF SAMPLE (Check	c all applicable boxes)		
☐ Drinking Water ☐ Raw	☐ Groundwater☐ Water Treatment Plant (Vastewater oint of Use (POU) d / Coagulated / pH Adjusted
☐ Air Filters Finishing: Starting: Net (M³) ☐ Air Charcoal Cartridge	Date/Time	☐ Milk ☐ S ☐ Wipes ☐ B	iludge (Semi-solid Samples) ioil/Sediment iota (Type): Other:
COMMENTS: (Cautions e	etc.):		
☐ Field Treatment: Pre	servatives added:	lced/Frozen: Other:	
	mR/hr	☐ Radionuclide(s), if known:	
	e prearranged and have supervisor		
	(For questions, please call 510-620		
Gross Alpha	() of questions, please call 510-520		
☐ Total Uranium		al Beta (LSC)	a)
☐ Total Radium	☐ Tritii		
Radium-226	☐ Carl		
		ne-131	
⊔ Radium-228		ontium-89, 90	Market Control of the
	☐ Stro		
☐ Radium-228 ☐ Radon-222 ☐ Other (Specify):			
☐ Radon-222 ☐ Other (Specify);			
☐ Radon-222 ☐ Other (Specify); CHAIN OF CUSTODY			Date
CHAIN OF CUSTODY Date Time Custody Received	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Date Time Custody Released
CHAIN OF CUSTODY Date Time Custody Received	Name (Print)	kel-63 □ Iron-55	
CHAIN OF CUSTODY 1. Date Time Custody Received 2. Date Time Custody Received	Name (Print) Organization	kel-63 □ Iron-55	Time Custody Released
CHAIN OF CUSTODY 1. Date Time Custody Received 2. Date Time Custody Received	Name (Print) Organization Name (Print)	cel-63 □ Iron-55 Signature	Time Custody Released Date

□ Not Added

☐ Not Applicable

Preservatives/Carriers:

Added While Sampling

☐ Added in Laboratory



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 12-0504

Collector:

RHM

RHB

Requestor: Roger Lupo

RHB

SAN ONOFRE

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

Sacramento

CA 95814-5006

Phone Number:

Phone Number: 916-440-7955

Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012

Billing Agency: RHB

Samples Received by Lab: 10/5/2012

Parameter

System No:

Method

Result +/- CE

MDA 95

Units

Lab No: 12-0504-01

Sample ID:

R 92317 Sample Type: Fish/Shellfish

HASL Ga-01-R

Time Collected: 10/3/2012 09:30

Sampling Point: Black Perch,

SONGS B

Dry Wt/Wet Wt

K-40

0.259

15.1 +/- 0.376

0.561

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

amiziion and kaqiauoi	n Laboratories Brand		AMPLE ANALYSIS (te Received	Lab No. (Leave Blank)
350 Marina Bay Parkway,					
Richmond, CA 94804				5-12	12-0504
510-620-2911			1	k Time Sampled	Serial Number
			10-3		R 92317
collector Information			Reporting In	formation	
lame: lept./Branch:	RHM	÷	Name: Dept./Branch		
ddress:	L 11		Address:		
elephone No.:			Telephone No		
ample information	C		Billing Agend		
ystem Name / Facility: ampling Point (s):	Songs B		DWFOB (VQCB() DTSC
ampinig i onte (o).	· ·		DWTPB DEMB	☐ FDB ☐ DV	
ystem No.:			G LWD	U Other (Specify	/)
PE OF SAMPLE (Chec	k all applicable boxes) -			
Drinking Water Raw	☐ Groundwat	er	Surface W	ater	Wastewater
		tment Plant	(WTP) Distribution	n System 🔲	Point of Use (POU)
Treated (circle one): C	hlorinated / Chloramir	ated / Chlori	ne Dioxide / Ozonated	J / Peroxizone / Fluorida	ited / Coagulated / pH Adjus
Air Filters	Date	e/Time	☐ Seawater		Sludge (Semi-solid Sample
Finishing:			☐ Milk		Soil/Sediment
Starting:			☐ Wipes		
Net (M ³)			•		Biota (Type): Black Pa
			☐ Radon Car	lister U	Other:
Air Charcoal Cartridge		·			
OMMENTS: (Cautions, e	etc.):				
Field Treatment: Pre	servatives added:		lced/Frozen:	Othe	r •
Field Measurement:				de(s), if known:	
Rush/Priority (should be			ry approval)	<u> </u>	
					
IALYSIS REQUESTED	(For questions, please				
Gross Alpha			ss Beta	☐ Gamma Scar	
Total Uranium			al Beta (LSC)	☐ NORM (Gam	
		☐ Triti	um (³ H)	☐ Isotopic Ame	
				☐ Isotopic Pluto	nium
Radium-226		☐ Carl			
Radium-226 Radium-228		🔾 lodii	ne-131	☐ Isotopic Thor	ium
Radium-226 Radium-228 Radon-222		🔾 lodii			
Radium-226 Radium-228 Radon-222		🔾 lodii	ne-131 entium-89, 90	☐ Isotopic Thor	
Radium-226 Radium-228 Radon-222 Other (Specify);		☐ lodii ☐ Stro	ne-131 entium-89, 90	☐ Isotopic Thor ☐ Isotopic Uran	
Radium-226 Radium-228 Radon-222 Other (Specify);	None (Dia)	☐ lodii ☐ Stro	ne-131 entium-89, 90	☐ Isotopic Thor ☐ Isotopic Uran	ium
Radium-226 Radium-228 Radon-222 Other (Specify);	Name (Print)	☐ lodii ☐ Stro	ne-131 entium-89, 90	☐ Isotopic Thor ☐ Isotopic Uran	
Radium-226 Radium-228 Radon-222 Other (Specify);	Name (Print) Organization	☐ lodii ☐ Stro	ne-131 entium-89, 90	☐ Isotopic Thor ☐ Isotopic Uran	ium Date
Radium-226 Radium-228 Radon-222 Other (Specify); AIN OF CUSTODY Date Time Custody Received	Organization	☐ lodii ☐ Stro	ne-131 ontium-89, 90 cel-63	☐ Isotopic Thor ☐ Isotopic Uran	Date Time Custody Released
Radium-226 Radium-228 Radon-222 Other (Specify); AIN OF CUSTODY Date		☐ lodii ☐ Stro	ne-131 ontium-89, 90 cel-63	☐ Isotopic Thor ☐ Isotopic Uran	ium Date
Radium-226 Radium-228 Radon-222 Other (Specify); IAIN OF CUSTODY Date Time Custody Received	Organization	☐ lodii ☐ Stro	ne-131 ontium-89, 90 cel-63	☐ Isotopic Thor ☐ Isotopic Uran	Date Time Custody Released Date
Date Time Custody Received Time Custody Received	Organization Name (Print) Organization	☐ lodii ☐ Stro	ne-131 ontium-89, 90 kel-63 Signature	☐ Isotopic Thor ☐ Isotopic Uran	Date Time Custody Released Date Time Custody Released
Radium-226 Radium-228 Radon-222 Other (Specify); IAIN OF CUSTODY Date Time Custody Received Date Time Custody Received	Organization Name (Print)	☐ lodii ☐ Stro	ne-131 ontium-89, 90 kel-63 Signature	☐ Isotopic Thor ☐ Isotopic Uran	Date Time Custody Released Date
Radium-226 Radium-228 Radon-222 Other (Specify); IAIN OF CUSTODY Date Time Custody Received Date Time Custody Received Date	Organization Name (Print) Organization Name (Print)	☐ lodii ☐ Stro	ne-131 ontium-89, 90 kel-63 Signature Signature	☐ Isotopic Thor ☐ Isotopic Uran	Date Time Custody Released Date Time Custody Released Date
Radium-226 Radium-228 Radon-222 Other (Specify); AIN OF CUSTODY Date Time Custody Received Date Time Custody Received	Organization Name (Print) Organization Name (Print) Organization	☐ lodii ☐ Stro	ne-131 ontium-89, 90 kel-63 Signature	☐ Isotopic Thor ☐ Isotopic Uran	Date Time Custody Released Date Time Custody Released

Q Added in Laboratory

Insufficient Sample

☐ Not Applicable

Not Added

Preservatives/Carriers:

Q Added While Sampling



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 12-0087

Collector:

RHM

RHB

Requestor: Steve Hsu

RHB

SAN ONOFRE

CA

1500 Capitol Avenue, MS 7610

Phone Number:

Sacramento

CA 95814-5006

Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012

Phone Number: 916-440-7940

System No:

Billing Agency: RHB

Samples Received by Lab: 4/26/2012

Parameter

Method

Sample Type: Fish/Shellfish

Result +/- CE

MDA 95

Units

Lab No: 12-0087-01

Sample ID:

R 91978

Time Collected: 4/24/2012 12:15

0.2610

Sampling Point: California Spiny

Lobster

Dry Wt/Wet Wt

K-40

HASL Ga-01-R

14.7 +/- 0.345

0.468

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

		E ANAL 1919 (Nadiocricilical)
Sanitation and Radiation		Date Received Lab No. (Leave Blank)
850 Marina Bay Parkway, (Richmond, CA 94804	3104	0-2612 10-0003
510-620-2911		Date & Time Sampled Serial Number
		9-24-12 12:15 R 91978
Collector Information		Reporting Information
Name:	RHN	Name:
Dept./Branch:	KHO	Dept./Branch: Address:
Address:		Audiess.
Telephone No.:		Telephone No.:
Sample Information	C. Madre	Billing Agency
System Name / Facility:	SON ONDO.	□ DWFOB() □ RHB □ RWQCB() □ DTSC
Sampling Point (s):	1 + () !	□ DWTPB □ FDB □ DWR □ CDFG
System No.: 44	Son Ondre its 2/3 outball	☐ EMB ☐ Other (Specify)
TYPE OF SAMPLE (Check	(all applicable hoves)	- I
Drinking Water	Groundwater	☐ Surface Water ☐ Wastewater
Raw	☐ Water Treatment Plant (WTF	P) Distribution System Point of Use (POU)
		ioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
	and the state of 	
Air Filters	Date/Time	☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing:		☐ Milk ☐ Soil/Sediment
Starting:		☐ Wipes ☐ Biota (Type): COIN
Net (M ³)		☐ Radon Canister ☐ Other:
Air Charcoal Cartridge	The state of the s	
COMMENTS: (Cautions, e		
J Field Treatment: Pres		Iced/Frozen: Other:
Field Measurement:	mR/hr	□ Radionuclide(s), if known:
Rush/Priority (should be	prearranged and have supervisory app	proval) of the K-40 of 14.7 colors
ANALYSIS REQUESTED (For questions, please call 510-620-291	11)
Gross Alpha	Gross Be	
Total Uranium	☐ Total Bet	
Total Radium	☐ Tritium (³	
	☐ Carbon-1	
Radium-226		
Radium-228	☐ lodine-13	
Radon-222	☐ Strontium	
Other (Specify);	Nickel-63	3
CHAIN OF CUSTODY		
Date	Name (Print)	Date
Time Custody Received	Organization	Signature Time Custody Released
Date	Name (Print)	Date
Time Custody Received	Organization	Signature Time Custody Released
4-26-12	<u> </u>	
Date	Name (Print)	Date Date
Time Custody Received	Organization	Signature Time Custody Released
ABORATORY REMARKS Condition at Time of Rec Acceptable Hölding Time Exceed Preservatives/Carriers:	celpt: ☐ Broken Container	Leaked in Transit Improper Container Insufficient Sample
. Preservauves/Carners:	nd D Added in Laboratory	☐ Not Added ☐ Not Apolicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 12-0084

Collector:

RHM

RHB

Requestor: Steve Hsu

RHB

CA

Sacramento

1500 Capitol Avenue, MS 7610 95814-5006

SAN ONOFRE Phone Number:

CA

Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012

Phone Number: 916-440-7940

Samples Received by Lab: 4/26/2012

System No:

Parameter

Billing Agency: RHB

Units

Method

Result +/- CE

MDA 95

Lab No: 12-0084-01

Sample ID: Sample Type: Fish/Shellfish

R 91975

Time Collected: 4/24/2012 11:05

0.2267

Sampling Point: California

Sheephead

Dry Wt/Wet Wt

K-40

HASL Ga-01-R

18.6 +/- 0.428

0.451

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

REQUEST FOR SAMPLE	ANALYSIS (Radiochemical)
Sanitation and Radiation Laboratories Branch	Date Received Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	4-26-12 12-0044
510 620 2011	Date & Time Sampled Serial Number
310-020-2911	4-24-12 11:03 R 91975
Collector Information	Reporting Information
Name: Dept./Branch:	Name: Dept./Branch:
Address:	Address:
Telephone No.:	Telephone No.:
System Name / Facility: Sala ()(40)	Billing Agency
Sampling Point (s):	□ DWFOB() □ RHB □ RWQCB() □ DTSC □ DWTPB □ FDB □ DWR □ CDFG
System Name / Facility: San Onofie Sampling Point (s): System No.: Units 2/3 Out all	☐ EMB ☐ Other (Specify)
TYPE OF SAMPLE (Check all applicable boxes)	
☐ Drinking Water ☐ Groundwater	☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP)	☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	ide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	☐ Seawater ☐ Sludge (Semi-solid Samples)
	☐ Milk ☐ Soil/Sediment
	☐ Wipes ☐ Biota (Type):(101, Sheephe
	☐ Radon Canister ☐ Other:
☐ Air Charcoal Cartridge	
COMMENTS: (Cautions, etc.):	
☐ Field Treatment: Preservatives added:	lced/Frozen: Other:
☐ Field Measurement:mR/hr	☐ Radionuclide(s), if known:
☐ Rush/Priority (should be prearranged and have supervisory appro	
ANALYSIS REQUESTED (For questions, please call 510-620-2911)	
☐ Gross Alpha ☐ Gross Beta	☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (
☐ Total Radium ☐ Tritium (³H)	
☐ Radium-226 ☐ Carbon-14	Isotopic Plutonium
☐ Radium-228 ☐ lodine-131	☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-8	
Other (Specify); Nickel-63	Iron-55
CHAIN OF CUSTODY	G nor-55
1.	
Date Name (Print)	Date
Time Custody Received Organization 2.	Signature Time Custody Released
Date Name (Print)	Date
Time Custody Received Organization 3. 474-2612 U D	Signature Time Custody Released
Date Name (Print)	Date Date
Time Custody Received Organization	Signature Time Custody Released
	Signature Time Custody Released
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt:	
Acceptable	☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Insufficient Sample
B. Preservatives/Carriers: □ Added While Sampling □ Added in Laboratory	D Maradalar
- route time company - route in Laboratory	☐ Not Added ☐ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 12-0086

Collector:

RHM

RHB

Requestor: Steve Hsu

RHB

CA

1500 Capitol Avenue, MS 7610 95814-5006

SAN ONOFRE Phone Number:

Sacramento

CA

Phone Number: 916-440-7940

Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012

System No:

Billing Agency: RHB

Samples Received by Lab: 4/26/2012

0.870

pCi/g dry wt

Parameter Method Result +/- CE MDA 95 Units Lab No: 12-0086-01 Sample ID: R 91977 Time Collected: 4/24/2012 09:15 Sampling Point: California Mussel Sample Type: Fish/Shellfish Dry Wt/Wet Wt 0.1986 K-40 HASL Ga-01-R

13.7 +/- 0.387

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	REQUEST FOR SAMPLE	E ANALYSIS (Radio	ochemical)	医二甲酰甲酰胺 经制度 电压压 遺
Sanitation and Radiation Laborate 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	ries Branch	Date Rec 4-20 Date & Time	2~12 Sampled	Lab No. (Leave Blank) 12-0086 Sérial Number
		4-24-1		R 91977
Collector Information Name: Dept./Branch: Address:		Reporting Informa Name: Dept./Branch: Address:	ition	
Telephone No.:		Telephone No.:		
	0 0/10	Billing Agency		
System Name / Facility: 5 4 1 Sampling Point (s): System No.:	n Ondre 113 Outfall	DWFOB() DWTPB	RHB RWQ0 DFDB DWR Other (Specify)	□ CDFG
TYPE OF SAMPLE (Check all applic	able boxes)			
☐ Drinking Water ☐	Groundwater Water Treatment Plant (WTP)		em 🛄 Poi	istewater nt of Use (POU) / Coagulated / pH Adjusted
À Air Filters	Date/Time	☐ Seawater		
	Date/Time			dge (Semi-şəlid Samples)
Ctarting		☐ Milk		l/Sediment O
Starting:		☐ Wipes		ta (Type) <u>: </u>
Net (M³)		☐ Radon Canister	☐ Oth	er: Mussel
Air Charcoal Cartridge			en de la companya de	
COMMENTS: (Cautions, etc.): ☐ Field Treatment: Preservatives ☐ Field Measurement: ☐ Rush/Priority (should be prearranged)	added:mR/hr	lced/Frozen: □ Radionuclide(s),	Other: if known:	
ANALYSIS REQUESTED (For questi	ons please call 510-620-2011			
Gross Alpha				
☐ Total Uranium	☐ Gross Beta	•	Gamma Scan	
☐ Total Radium	☐ Total Beta ☐ Tritium (³H		NORM (Gamma)	The state of the s
☐ Radium-226	Carbon-14		☐ Isotopic Americiu	
Radium-228	U lodine-131		☐ Isotopic Plutonium	n
☐ Radon-222	☐ Strontium-8	80 00	☐ Isotopic Thorium	
Other (Specify):	Nickel-63) 9 , 9 0	Isotopic Uranium	
CHAIN OF CUSTODY	G Nickel-83		☐ Iron-55	
1.				
Date Name (Pr	int)			Date
Time Custody Received Organizat	ion	Signature		Time Custody Released
Date Name (Pr	int)			Date
Time Custody Received Organizat		Signature		Time Custody Released
B. <u>(1-26-12</u> Name (Pri	int)			
10:00	- NINRIB	\mathcal{N} .	on Wall	Date
Time Custody Received Organizat	ion V	Signature	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Time Custody Released
	ank) G Broken Container G Sample Not Cooled	☐ Leaked in Transit☐ Insufficient Sample	(, ,) [†] (, , ,)	Improper Container
2. 1.000.144100.GGIIIGIG.	no	Not Added		harman and a second



State of California - Health and Human Services Agency

California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0085

Collector:

RHM

RHB

CA

Requestor: Steve Hsu

RHB

1500 Capitol Avenue, MS 7610

95814-5006

Sacramento

CA

Phone Number: 916-440-7940

Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012

SAN ONOFRE

Phone Number:

System No:

Billing Agency: RHB

Samples Received by Lab: 4/26/2012

Parameter Method Result +/- CE MDA 95 Units Sample ID: R 91976 Time Collected: 4/24/2012 09:10 Sampling Point: Sea Bass Lab No: 12-0085-01 Sample Type: Fish/Shellfish Dry Wt/Wet Wt 0.2303 17.4 +/- 0.396 pCi/g dry wt K-40 HASL Ga-01-R 0.407

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

REQUEST FOR SAMPL	
Sanitation and Radiation Laboratories Branch	Date Received Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	4-26-12 12-0085
510-620-2911	Date & Time Sampled Serial Number
	4-24-12 9:10 R 91976
Collector Information	Reporting Information
Name:	Name: Dept./Branch:
Dept./Branch: R L M Address:	Address:
wardoo.	
Telephone No.:	Telephone No.:
Sample Information System Name / Facility: Sau Owo ve	Billing Agency
Compling Doint (a):	D DWFOB() RHB RWQCB() DTSC D DWTPB D FDB D DWR D CDFG
System No. 12 1/15 2/3 out/all	D EMB D Other (Specify)
System No.: UN(IS 075 UUC) WITH	
YPE OF SAMPLE (Check all applicable boxes)	
☐ Drinking Water ☐ Groundwater	☐ Surface Water ☐ Wastewater
Raw Water Treatment Plant (WTP	
Treated (circle one): Chlorinated / Chloraminated / Chlorine Di	oxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
Air Filters Date/Time	☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing:	☐ Milk ☐ Soil/Sediment
	□ Wipes □ Biota (Type): Borred
Starting:	
Net (M ³)	□ Radon Canister □ Other: <u>Sque</u> Bas
Air Charcoal Cartridge	
COMMENTS: (Cautions, etc.):	
Field Treatment: Preservatives added:	
Field Measurement:mR/hr	☐ Radionuclide(s), if known:
Rush/Priority (should be prearranged and have supervisory app	
NALYSIS REQUESTED (For questions, please call 510-620-291	
Gross Alpha Gross Be	· · · · · · · · · · · · · · · · · · ·
I Total Uranium ☐ Total Bet	
I Total Radium ☐ Tritium (³	H) Sotopic Americium / Curium 🕹 🍪
Radium-226 Carbon-1	4
Radium-228	31
Radon-222	· · · · · · · · · · · · · · · · · · ·
Other (Specify); U Nickel-63	and the control of th
HAIN OF CUSTODY	
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Date Name (Print)	Date Date
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Time Custody Received Organization	Signature Time Custody Released
ABORATORY REMARKS (Leave Blank)	
. Condition at Time of Receipt:	D. Landard W. C. D. Company Contribution
Acceptable	☐ Leaked in Transit ☐ Improper Container ☐ Insufficient Sample
. Preservatives/Carriers:	
Added While Sampling	□ Not Added □ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0045

Collector:

RHM

RHB

CA

Requestor: Steve Hsu

RHB

1500 Capitol Avenue, MS 7610

Sacramento

CA 95814-5006

Phone Number: 916-440-7940

Phone Number: Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012

SAN ONOFRE

System No:

Billing Agency: RHB

Samples Received by Lab: 4/12/2012

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0045-01	Sample ID: R 92672 Sample Type: Biota	Time Collected: 4/10/2012	13:00 Sampling Poi	int: Black Perch
Dry Wt/Wet Wt		0.2315		
K-40	HASL Ga-01-R	15.5 +/- 0.3	89 0.575	pCi/g dry wt

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

		ANALYSIS (Radiochemical)	
Sanitation and Radiation 850 Marina Bay Parkway,		Date Received	Lab No. (Leave Blank)
Richmond, CA 94804	3104	4-12-12	12-0045
510-620-2911	.	Date & Time Sampled	Serial Number
		4-10-12 13:1	00 R 92672
Collector Information Name:		Reporting Information	
Dept./Branch:	OLIAN	Name: Dept./Branch:	
Address:	RHM	Address:	
Telephone No.:		Relephone No.:	
Sample Information		Billing Agency	
System Name / Facility: Sampling Point (s):	Songs c	☐ DWTPB ☐ FDB	□ RWQCB() □ DTSC □ DWR □ CDFG
System No.:		G Citiel (Specify)
TYPE OF SAMPLE (Check	all applicable boxes)		
☐ Drinking Water ☐ Raw	☐ Water Treatment Plant (WTP)		
☐ Treated (circle one): Cf	nlorinated / Chloraminated / Chlorine Diox	ide / Ozonated / Peroxizone / F	luoridated / Coagulated / pH Adjusted
☐ Air Filters	Date/Time	□CSeawater	☐ Sludge (Semi-solid Samples)
Finishing:		□ C Milk	☐ Soil/Sediment
Starting:		☐ Wipes	□ Biota (Type): Black porc
Net (M³)		☐ Radon Canister	Other:
Air Charcoal Cartridge			
COMMENTS: (Cautions, e	tc.):		
	servatives added:	Iced/Frozen	Other
Field Measurement:		□ Radionuclide(s), if known:	
	prearranged and have supervisory appro	oval)	
	For questions, please call 510-620-2911)		
Gross Alpha	Gross Beta		a Scan
Total Uranium	☐ Total Beta		
Total Radium	☐ Tritium (³H)	W.	c Americium / Curium
Radium-226	☐ Carbon-14		c Plutonium
Radium-228	lodine-131	☐ Isotopi	
Radon-222	☐ Strontium-8		
Other (Specify);		□ Iron-55	
HAIN OF CUSTODY			
	Name (Print)		
Date	Name (Print)		Date
Date Time Custody Received	Name (Print) Organization	Signature	Date Time Custody Released
Time Custody Received Date			
Date Time Custody Received Date Time Custody Received	Organization	Signature Signature	Time Custody Released
Date Time Custody Received Date Time Custody Received U-12-12 Date	Organization Name (Print)	Signature	Date Time Custody Released Time Custody Released
Date Time Custody Received Date Time Custody Received U-10-12	Organization Name (Print) Organization		Date Time Custody Released Time Custody Released
Time Custody Received Time Custody Received Time Custody Received Time Custody Received ABORATORY REMARKS	Organization Name (Print) Organization Name (Print) Organization (Leave Blank)	Signature Signature Worker M. Q.	Time Custody Released Date Time Custody Released Date
Date Time Custody Received Date Time Custody Received U-12-12 Date Time Custody Received ABORATORY REMARKS Condition at Time of Received	Organization Name (Print) Organization Name (Print) Organization (Leave Blank)	Signature Signature	Time Custody Released Date Time Custody Released Date Time Custody Released
Date Time Custody Received Date Time Custody Received U-12-12 Date Time Custody Received ABORATORY REMARKS	Organization Name (Print) Organization Name (Print) Organization (Leave Blank) olipt: G Broken Container	Signature Signature Worker M. Q.	Time Custody Released Date Time Custody Released Date



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0044

Collector:

RHM

RHB

CA

Requestor: Steve Hsu

RHB

1500 Capitol Avenue, MS 7610

Sacramento

CA 95814-5006

Phone Number: 916-440-7940

Phone Number: Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012

SAN ONOFRE

System No:

Billing Agency: RHB

Samples Received by Lab: 4/12/2012

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0044-01	Sample ID: R 92671 Sample Type: Biota	Time Collected: 4/10/2012	12:00 Sampling Poin	t: Sheephead
Dry Wt/Wet Wt		0.2225		
K-40	HASL Ga-01-R	19.1 +/- 0.4	37 0.454	pCi/g dry wt

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPL Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164		Date Received L/_12 - 12	Lab No. (Leave Blank)
Richmond, CA 94804	nmond, CA 94804		
510-620-2911		Date & Time Sampled 4 - 10 - 12	Serial Number R 92671
Collector Information		Reporting Information	
lame:	alagoria de la companya de la compa	Name:	
Dept./Branch: Address:	RHM	Dept./Branch: Address:	
		Audiess.	
elephone No.:		Telephone No.:	
Sample Information		Billing Agency	
System Name / Facility: Sampling Point (s):	SOLARA C	DWFOB() RHB	RWQCB() DTSC
Sampling Fourt (s).	Songo C	DWTPB I FDB DEMB I Other	DWR CDFG
System No.:	*	G LIND G Other	(Specify)
YPE OF SAMPLE (Check			
Drinking Water Raw	☐ Groundwater ☐ Water Treatment Plan	Surface Water of (WTP) Distribution System	☐ Wastewater
		orine Dioxide / Ozonated / Peroxizone /	Point of Use (POU)
		The second secon	riuolidated / Coagulated / pH Adjusted
Air Filters	Date/Time	☐ Seawater	☐ Sludge (Semi-solid Samples)
Finishing:		☐ Milk	☐ Soil/Sediment
Starting:		☐ Wipes	Biota (Type): Sheephea
Net (M ³)		☐ Radon Canister	Other:
Air Charcoal Cartridge			
OMMENTS: (Cautions e	itc.):		
Field Treatment: Pres	servatives added:	lced/Frozen:	
Field Messurement	servatives added.		
	mR/hr		
	prearranged and have supervis		19.1 1003 437 0.45
	For questions, please call 510-6	20-2911)	
Gross Alpha	□G	ross Beta	ma Scan
Total Uranium	□ To	otal Beta (LSC) NORI	M (Gamma)
Total Radium	Tr		oic Americium / Curium
Radium-226	GE3 a	arbon-14 🔲 Isotop	oic Plutonium
Radium-228	☐ lo	dine-131 🔲 Isotor	Dic Thorium
Radon-222	☐ St	rontium-89, 90 🔲 Isotop	oic Uranium
Other (Specify);		ckel-63 🔲 Iron-5	
HAIN OF CUSTODY			
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			Date
Time Custody Received	Organization	Signature	Time Custody Released
Date	Name (Print)	24	Date V/3/12
Time Custody Received	Organization	Signature	Time Custody Released
4-17-12	\/ A		Time Custody Released
Date	Name (Print)	2 19 1	Date
Time Custody Received	Organization DWRL	Signature Sultono	Time Custody Released
			I IME Custody Released
BORATORY REMARKS Condition at Time of Rec	(Leave Blank) selot:		
☐ Acceptable	☐ Broken Container	□ Leaked in Transit	☐ Improper Container
 Holding Time Exceed 	ed Sample Not Cooled		- impopor container
THE RESERVE OF THE PROPERTY OF		habitati naturali di la companya da	
Preservatives/Carriers: Added While Samplin			



State of California - Health and Human Services Agency

California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0047

Collector:

System No:

RHM

RHB

CA

Requestor: Steve Hsu

RHB

1500 Capitol Avenue, MS 7610

Sacramento

CA

Phone Number: 916-440-7940

Phone Number:

SAN ONOFRE

Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012 Billing Agency: RHB

Samples Received by Lab: 4/12/2012

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0047-01	Sample ID: R 92674 Sample Type: Biota	Time Collected: 4/10/2012	11:45 Sampling Point	: Calif Spiny Lobster
Dry Wt/Wet Wt		0.2758		
K-40	HASL Ga-01-R	14.0 +/- 0.3	20 0.296	pCi/g dry wt

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

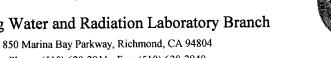
	REQUEST FOR SAMPLE	ANALYSIS (Radiochemical)	<u> 18 jan Barata Barata Barata</u>
Sanitation and Radiation 850 Marina Bay Parkway, (Date Received	Lab No. (Leave Blank) 12 - 0047
Richmond, CA 94804 510-620-2911		Date & Time Sampled	Serial Number
310-020-2911		1 4-10-12 11:45	R 92674
Collector Information		Reporting Information	
Name:	*	Name:	
Dept./Branch:		Dept./Branch:	
Address:	thubb	Address:	
Telephone No.:	RHM	Telephone No.:	
Sample Information		Billing Agency	
System Name / Facility:		DWFOB() RHB RWQ0	
Sampling Point (s):		DOWTPB DFDB DWR DEMB DOther (Specify)	□ CDFG
System No.:	Bones C	Other (Specify)	
TYPE OF SAMPLE (Check	all applicable boxes)		
☐ Drinking Water ☐ Raw	Groundwater Water Treatment Plant (WTP)	☐ Distribution System ☐ Po	estewater nt of Use (POU)
Treated (dicide one). Cr	normated / Cinoralimated / Cinorine Dio	xide / Ozonated / Peroxizone / Fluoridated	/ Coagulated / pri Adjusted
☐ Air Filters	Date/Time	☐ Seawater ☐ Slu	dge (Semi-solid Samples)
Finishing:		☐ Milk ☐ Soi	I/Sediment
Starting:	<u> </u>	☐ Wipes ☐ Bio	ta (Type): Calloculo
Net (M ³)		^	ier: Soin Vonstei
Air Charcoal Cartridge			
Field Measurement:	servatives added:mR/hr prearranged and have supervisory appr	☐ Radionuclide(s), if known:	
ANALYSIS REQUESTED (For questions, please call 510-620-2911)	
☐ Gross Alpha	☐ Gross Bet	file of the property of the second	
☐ Total Uranium	☐ Total Beta		
☐ Total Radium	☐ Tritium (³H		
☐ Radium-226	☐ Carbon-14		
☐ Radium-228	☐ lodine-131	· · · · · · · · · · · · · · · · · · ·	
☐ Radon-222	☐ Strontium-		
Other (Specify);	Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY			
1. Date	Name (Print)		Date
. · · · <u></u>			
Time Custody Received 2.	Organization	Signature	Time Custody Released
Date	Name (Print)		Date
Time Custody Received	Organization	Signature	Time Custody Released
3. Date 4-12-12	Name (Print)	4	Date
11:00	DWRLB	Stulong Male	
Time Custody Received	Organization	Signature	Time Custody Released
LABORATORY REMARKS A. Condition at Time of Rec			
Acceptable Holding Time Exceed	☐ Broken Container	☐ Leaked in Transit ☐ ☐ Insufficient Sample ☐	Improper Container
B. Preservatives/Carriers:	ng D Added in Laboratory	□ Not Added □	Not Applicable

D Not Added

☐ Not Applicable



Drinking Water and Radiation Laboratory Branch





Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0046

Collector:

RHM

SAN ONOFRE

RHB

Requestor: Steve Hsu

RHB

1500 Capitol Avenue, MS 7610

Sacramento

95814-5006 CA

Phone Number: 916-440-7940

Phone Number: Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012

CA

System No:

Billing Agency: RHB

Samples Received by Lab: 4/12/2012

Result +/- CE **MDA** 95 Units Method Parameter Sampling Point: Calif Mussel Time Collected: 4/10/2012 11:00 R 92673 Lab No: 12-0046-01 Sample ID: Sample Type: Biota 0.1880 Dry Wt/Wet Wt pCi/g dry wt 0.779 11.5 +/- 0.334 HASL Ga-01-R K-40

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

California Department of Public Health State of California - Health and Welfare Agency REQUEST FOR SAMPLE ANALYSIS (Radiochemical) Date Received Lab No. (Leave Blank) Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 2-0046 \mathbf{C}_{λ} Richmond, CA 94804 Date & Time Sampled Serial Number 510-620-2911 U:00 -10-12 Réporting Information Collector Information Name: Name: Dept./Branch: Dept./Branch: RHM Address: Address: Telephone No.: Telephone No.: Sample Information Billing Agency System Name / Facility: DWFOB() ☐ RHB □ RWQCB() ☐ DTSC Sampling Point (s): ☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG □ EMB ☐ Other (Specify) System No.: TYPE OF SAMPLE (Check all applicable boxes) 5 □ Groundwater Surface Water Wastewater Drinking Water ☐ Water Treatment Plant (WTP) ☐ Distribution System Raw ☐ Point of Use (POU) Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted Date/Time Seawater ☐ Sludge (Semi-solid Samples) Air Filters ☐ Milk ☐ Soil/Sediment Finishing: □ Wipes ☐ Biota (Type): _/ Starting: □ Radon Canister □ Other: ________ Net (M³) □ Air Charcoal Cartridge **COMMENTS:** (Cautions, etc.): Other: ☐ Field Treatment: Preservatives added: ___ Iced/Frozen: ☐ Radionuclide(s), if known: ___ mR/hr ☐ Field Measurement: Rush/Priority (should be prearranged and have supervisory approval) ANALYSIS REQUESTED (For questions, please call 510-620-2911) Gross Alpha ☐ Gross Beta □ Gamma Scan ■ NORM (Gamma) ☐ Total Beta (LSC) ☐ Total Uranium ☐ Tritium (³H) □ Total Radium Isotopic Americium / Curium ☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium ☐ lodine-131 Radium-228 Isotopic Thorium ☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium Other (Specify); ☐ Nickel-63 ☐ Iron-55 CHAIN OF CUSTODY 1. Date Date Name (Print) Organization **Time Custody Received** Signature Time Custody Released 2. Name (Print) Time Custody Received Organization Signature Time Custody Released 3. U-12-17 Name (Print) Date Date 11:00 Time Custody Received Organization Time Custody Released LABORATORY REMARKS (Leave Blank) Condition at Time of Receipt: O **Broken Container** Leaked in Transit Acceptable 0 Improper Container

Insufficient Sample

Not Applicable

Not Added

Holding Time Exceeded

Preservatives/Carriers:

Added While Sampling

0

Sample Not Cooled

Added in Laboratory